Listing of Claims

1. (Currently Amended) A method of driving a plasma display panel, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during a first time interval that is a portion of the set-up interval included in an initial sub-field of one frame; and

applying a second waveform to the sustain electrode during a second time interval that is a portion of the set-up interval of all or fewer than all of the remaining sub-fields following the initial sub-field, wherein the first waveform is different from the second waveform, such that the sustain electrode is electrically floated in the first waveform during the first time interval that is a portion of the set-up interval, and the sustain electrode is supplied with substantially a ground voltage in the second waveform during the second time interval that is a portion of the set-up interval of all or fewer than all of the remaining sub-fields.

2. (Original) The method as claimed in claim 1, wherein said initial sub-field is at least one sub-field including the first sub-field of said frame.

3. (Original) The method as claimed in claim 2, wherein said initial sub-field is the first and second sub-fields of said frame.

4. (Original) The method as claimed in claim 1, wherein each of the remaining sub-fields other than the initial sub-field has a higher brightness weighting value than the initial sub-field.

5. (Currently Amended) The method as claimed in claim 1, wherein the set-up interval is for forming wall charges within one or more cells by a writing discharge, and the set-down interval is for erasing a portion of said wall charges by an erasure discharge[[,]] ~~and wherein the sustain electrode is electrically floated during the first time interval that is a portion of said set-up interval~~.

6. (Currently Amended) The method as claimed in claim 5, wherein wall charges within one or more cells are formed by a writing discharge during the set-up interval in each initialization period of the remaining sub-fields other than the initial sub-field ~~includes a set-up interval for forming wall charges within cells by a writing discharge~~, and wherein in the [[a]] set-down interval in each initialization period of the remaining sub-fields ~~for erasing~~ a portion of said wall charges are erased by an erasure discharge[[,]] ~~and wherein the sustain electrode is supplied with a ground voltage during the set-up interval~~.

7. (Currently Amended) The method as claimed in claim 1 [[5]], ~~wherein each initialization period of the remaining sub-fields other than the initial sub-field includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and~~ wherein the sustain electrode is electrically floated during a shorter time than said first time interval in the set-up interval.

8. (Currently Amended) A [[The]] method of driving a plasma display panel ~~as claimed in claim 7~~, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during the set-up interval in an initial sub-field of one frame; and

applying a second waveform to the sustain electrode during the set-up interval of all or fewer than all of the remaining sub-fields following the initial sub-field, wherein the first waveform is different from the second waveform, such that the sustain electrode is electrically floated in the first waveform during the set-up interval and in the second waveform during the

set-up interval of all or fewer than all of the remaining sub-fields, wherein a time interval when the sustain electrode is floated in the second waveform is set to be shorter than a time interval during which the sustain electrode is floated in the first waveform ~~as it goes into the last sub-field of said frame~~.

9. (Canceled)

10. (Currently Amended) A [[The]] method of driving a plasma display panel ~~as claimed in claim 9~~, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during the set-up interval in an initial sub-field of one frame; and

applying a second waveform to the sustain electrode during the set-up interval of all or fewer than all of the remaining sub-fields following the initial sub-field,

~~wherein each initialization period of the remaining sub-fields other than said sub-field includes a set-up interval for forming wall charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and~~

wherein the first waveform is different from the second waveform, such that a voltage rising at a first slope is applied to the sustain electrode during said first waveform ~~time interval~~, and a voltage rising at a second slope different from the first slope is applied to the sustain electrode during said second waveform.

11. (Canceled)

12. (Currently Amended) A method of driving a plasma display panel, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during a first time interval that is a portion of the set-up interval of a sub-field having a low weighting value at one frame; and

applying a second waveform to the sustain electrode during a second time interval that is a portion of the set-up interval of all or fewer than all of the remaining sub-fields other than the initial sub-field having said low brightness weighting value,

wherein the first waveform is different from the second waveform, such that the sustain electrode is electrically floated in the first waveform during the first time interval that is a portion of said set-up interval, and the sustain electrode is supplied with substantially a ground voltage in the second waveform during the second time interval that is a portion of the set-up interval of all or fewer than all of the remaining sub-fields.

13. (Original) The method as claimed in claim 12, wherein said sub-field having said low brightness weighting value includes at least one sub-field having a brightness weighting value that is less than a half of the maximum brightness weighting value of said frame.

14. (Currently Amended) The method as claimed in claim 12, wherein said set-up interval is for forming wall charges within one or more cells by a writing discharge, and said set-down interval is for erasing a portion of said wall charges by an erasure discharge[[,]] ~~and wherein the sustain electrode is electrically floated during the first time interval that is a portion of said set-up interval~~.

15. (Canceled)

16. (Currently Amended) A ~~The~~ method of driving a plasma display panel ~~as claimed in claim 14~~, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during the set-up interval of a sub-field having a low brightness weighting value at one frame; and

applying a second waveform to the sustain electrode during the set-up interval of all or fewer than all of the remaining sub-fields other than the initial sub-field having said low brightness weighting value, wherein the first waveform is different from the second waveform, such that the sustain electrode is electrically floated in the first waveform during the set-up interval and in the second waveform during the set-up interval of all or fewer than all of the remaining sub-fields, wherein the sustain electrode is electrically floated in the second waveform during a shorter time than ~~said first time interval in the set-up interval~~ in the first waveform

~~wherein each initialization period of the remaining sub-fields other than said sub-field having said low brightness weighting value includes a set-up interval for forming wall~~

~~charges within cells by a writing discharge, and a set-down interval for erasing a portion of said wall charges by an erasure discharge, and~~

17. (Canceled)

18. (Currently Amended) A ~~The~~ method of driving a plasma display panel ~~as claimed in claim 14~~, comprising:

applying a rising pulse to a scan electrode during a set-up interval of an initialization period, wherein the rising pulse changes to a second voltage after the rising pulse has changed to a first voltage, wherein the second voltage is higher than the first voltage;

applying a falling pulse to a scan electrode during a set-down interval of the initialization period, wherein the falling pulse changes to a fourth voltage after the falling pulse has changed to a third voltage, wherein the third voltage is higher than the fourth voltage;

applying a first waveform to a sustain electrode during the set-up interval of a sub-field having a low weighting value at one frame; and

applying a second waveform to the sustain electrode during the set-up interval of all or fewer than all of the remaining sub-fields other than the initial sub-field having said low brightness weighting value, wherein the first waveform is different from the second waveform, such that a voltage rising at a first slope is applied to the sustain electrode during said first waveform ~~time interval~~, and a voltage rising at a second slope different from the first slope is applied to the sustain electrode during said second waveform.

19. (Canceled)

20. (Canceled)

21. (Previously Presented) A method of driving a plasma display panel, comprising:

applying a first waveform to one or more sustain electrodes in an initialization period included in an initial sub-field of one frame; and

applying a second waveform to the one or more sustain electrodes in an initialization period of all or fewer than all of the remaining sub-fields following the initial sub-field of said frame, wherein each of said initialization periods of the initial sub-field and remaining sub-fields includes a set-up interval for forming wall charge within at least one cell by a writing discharge and a set-down interval for erasing a portion of said wall charges by an erasure discharge,

wherein the first waveform is applied to allow the one or more sustain electrodes to electrically float during a first time interval that is a portion of said set-up interval and wherein the second waveform is different from the first waveform and is applied during a second time interval that is a portion of said set-up interval.

22. (Currently Amended) The method of claim 21, wherein the second waveform supplies the one or more sustain electrodes with substantially a ground voltage during the set-up interval of all or fewer than all of the remaining sub-fields.

23. (Previously Presented) The method of claim 21, wherein the second waveform allows the one or more sustain electrodes to be electrically floated during a shorter time than the one or more sustain electrodes that are allowed to be electrically floated when the first waveform is applied during said first time interval in the set-up interval of the initial sub-field.

24. (Previously Presented) The method of claim 21, wherein the first waveform allows the one or more sustain electrodes to have a voltage rising at a first slope during said first time interval in the set-up interval of the initial sub-field.

25. (Currently Amended) The method of claim 21, wherein the second waveform allows the one or more sustain electrodes to have a voltage rising at a second slope different than a ~~said~~ first slope of a voltage rising for the one or more sustain electrodes generated by the first waveform ~~during said first time interval in the set-up interval of all or fewer than all of the remaining sub-fields~~.

26. (New) The method as claimed in claim 8, wherein the second waveform has a lower peak voltage than the first waveform as a result of said shorter time interval.

27. (New) The method as claimed in claim 8, wherein the first and second waveforms have substantially a same slope.

28. (New) The method as claimed in claim 10, wherein the first slope is greater than the second slope.

29. (New) The method as claimed in claim 28, wherein the voltage rising at the first slope has a maximum peak voltage greater than a maximum peak voltage of the voltage rising at the second slope.

30. (New) The method as claimed in claim 10, wherein the first slope and the second slope are non-zero slopes.

31. (New) The method as claimed in claim 16, wherein the second waveform has a lower peak voltage than the first waveform as a result of said shorter time interval.